ROYAL ASTRONOMICAL SOCIETY.

Vol. II. *November* 11, 1831. No. 7.

This was the first meeting after the long vacation; and the following communications were read: viz.

I. Observed Occultations and Eclipses of *Jupiter's* Satellites, by Mr. Maclear, of Biggleswade, from May 1830 to the present month.—These observations were made as usual, with the Wollaston telescope, and will afford means of comparison with similar observations made in other parts of the world.

II. Three Observed Occultations, in the months of May and June in the present year; and Five Observed Eclipses of *Jupiter's* Satellites, in the months of August, October, and November. By Mr. Snow.—These observations were made at Saville Row, London. In the eclipses recorded on the 3rd of November, the 4th satellite emerged quite close to the 1st, which made the latter appear as if it had suddenly become double. It was an interesting phenomenon.

III. Observations of the Occultation of *Aldebaran*, on the 23rd October. By Mr. Holehouse.

"The telescope was a seven-feet achromatic, by Tulley, with a power of 162, adjusted to the star. The atmosphere was free from clouds, and clear. I saw the moon steadily approach the star, until the star appeared to cling, half hidden by the moon, for about 4 or 5 seconds, by estimation, when it suddenly disappeared, leaving in my mind little doubt that the appearance was caused by the refraction of the moon's atmosphere."

IV. Observations of the Right Ascensions and Polar Distances of the Planets *Uranus*, *Jupiter*, *Vesta*, and *Mars*, from September to December, 1830. By M. Bianchi. In a Letter to Professor Airy.

M. Bianchi made his observations with a meridian circle of 3 feet, having a 5-feet telescope magnifying about 100. The apparent right ascensions and north polar distances are given, together with the differences arising from a comparison of their places, as given in the *Berlin Ephemeris*. The observed right ascension of *Uranus* is less than its computed right ascension, by a quantity varying from $1^s,12$ to $2^s,09$, and its polar distance is less, by a quantity varying from $4'',81$ to $12'',91$. The difference in the right ascension of *Jupiter* varies from $-0^s,06$ to $+0^s,70$, and in polar distance from $+0'',36$ to $-6'',43$. The difference in the right ascension of *Vesta* varies from $-0^s,56$ to $+0^s,36$, and in polar

distance from $-2''{,}25$ to $-17''{,}20$. The difference in the right ascension of *Mars* varies from $-0^s{,}43$ to $+1^s{,}02$, and in polar distance from $-14''{,}25$ to $+7''{,}64$. M. Bianchi regrets that he has not been able to make more observations; and states, as his reason for not attending sooner to the circular issued by this Society, that his duties as instructor of mathematics to the young prince prevented his attendance at the observatory at an earlier period.

V. Extract of a Letter from M. Cauchoix to Mr. Lubbock, dated October 1831.

" I have just finished another object-glass, of the same dimensions as that which Sir James South is now mounting, and which appears to me as perfect. I used for it one of the three pieces of glass which were set apart for the first object-glass, and I have adapted to it a new disc of flint-glass. A trial of it with *Jupiter* does not detect any flaw, either in the flint or crown glass. I hope also to be able to make a third glass of similar dimensions, as well as another glass of the same size as that which Mr. Cooper has lately bought of me. I have likewise another kind of telescope, which I have made for these two or three years, where *rock-crystal* is substituted for the crown-glass, by which means the focus is considerably shortened, and the brilliancy and clearness of the image greatly increased. But, at present, I have not been able to make them of larger diameter than about $5\frac{1}{4}$ English inches."

VI. A Catalogue of Stars, observed with the Moon, from June to October, 1831, at the Greenwich Observatory. From the Astronomer Royal: —

1831.		h	m	s
June 20	☽ 1 L	14	36	51,54
	2 ξ Libræ.....	14	48	5,08
21	☽ 1 L.	15	24	52,90
	η Libræ.....	15	35	3,78
	θ Libræ.....	15	44	42,04
24	☽ 1 L.	17	56	25,48
	(21) Sagittar. ..	18	15	48,16
	(94) Sagittar. ..	18	22	26,90
July 22	☽ 1 L.	18	30	45,98
	ξ^1 Sagitt. ..	18	48	1,20
	(316) Sagitt. ..	19	0	33,44
	d Sagitt. ..	19	8	28,24
Aug. 19	(112) Sagitt. ..	18	26	22,26
	r Sagitt. ..	18	40	35,06
	ξ^1 Sagitt. ..	18	48	14,53
	☽ 1 L.	19	3	18,36
Sept. 22	(120) Piscium..	0	27	20,40
	☽ 2 L.	0	59	10,66
Oct. 16	A Aquarii.....	21	15	40,76
	☽ 1 L.....	21	49	41,44

Oct. 19	.....	(227) Piscium..	23	46	54,06
		(270) Piscium..	23	57	10,50
		10 Ceti	0	18	43,98
		☽ 1 L.....	0	30	50,10
21	.....	(144) Piscium..	1	32	29,34
		o Piscium..	1	37	16,52
		ξ^1 Ceti.....	2	4	50,84
		☽ 2 L.....	2	27	0,48
23	.....	θ^1 Tauri	4	19	45,22
		θ^2 Tauri	4	19	50,90
		Aldebaran	4	27	3,40
		☽ 2 L.....	4	29	38,98
27	.....	☽ 2 L.....	8	40	44,32
		β Leonis	11	41	16,16
28	.....	☽ 2 L.....	9	38	12,70
		Regulus	10	0	13,32

VII. A paper on the Orbits of Binary Stars, by Sir J. F. W. Herschel, was commenced. The abstract will be given after its completion.

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